

## ABSTRACT

An audio boost circuit having an input buffer responsive to a program input signal for providing a buffered program signal, An all pass phase inverter having an input coupled to receive the buffered program signal and an output providing an inverted buffered program signal. A band pass filter having a predetermined Q, responsive to the buffered program signal for providing an inverted band pass boosted program signal. A summing amplifier for adding the inverted buffered program signal to the inverted band pass boosted program signal and for providing a composite program signal signal. A frequency adjustment means for adjusting the frequency at which the peak gain occurs. The input buffer is a state-variable input filter that processes the program input signal into high, low and mid-range frequency signal components. The input buffer has gain control circuitry for balancing and summing the high and mid-range signal components. A state-variable band-pass active filter processes the program input signal to produce the high, low and mid-range frequency signal components. A summing circuit adds the high, low and mid-range frequency signal components to provide the buffered program signal.